WHAT IS CLAIMED IS:

1. A nonaqueous electrolyte secondary battery comprising:

a positive electrode;

a negative electrode containing an alloy having a $CeNiSi_2$ type crystal structure; and

a nonaqueous electrolyte.

2. The nonaqueous electrolyte secondary battery according to claim 1, wherein a lattice constant of crystal axis "a" of the $CeNiSi_2$ type crystal structure falls within a range of 3.5Å to 5.5Å.

3. The nonaqueous electrolyte secondary battery according to claim 2, wherein said lattice constant falls within a range of 4Å to 5Å.

4. The nonaqueous electrolyte secondary battery according to claim 1, wherein the alloy contains at least one kind of element selected from the group consisting of P, Si, Ge, Sn and Sb.

5. The nonaqueous electrolyte secondary battery according to claim 4, wherein the alloy further contains at least one kind of element having an atomic radius falling within a range of 1.6×10^{-10} m to 2.2×10^{-10} m.

6. The nonaqueous electrolyte secondary battery according to claim 1, wherein the alloy has a composition represented by formula (A) given below:

$$LnM1_xM2_y \qquad (A)$$

where Ln denotes at least one kind of element selected from the elements having an atomic radius falling within a range of 1.6×10^{-10} m to 2.2×10^{-10} m, M1 is at least one element selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, and Nb, M2 is at least one element selected from the group consisting of P, Si, Ge, Sn and Sb, and x and y satisfy the conditions of $0.5 \leqq x \leqq 1.5$ and $1.5 \leqq y \leqq 3.5$.

7. The nonaqueous electrolyte secondary battery according to claim 6, wherein the element Ln is at least one element selected from the group consisting of La, Ce, Pr, Nd, Pm, Sm, Mg, Ca, Sr, Ba, Y, Zr and Hf.

8. The nonaqueous electrolyte secondary battery according to claim 6, wherein the atomic ratio x satisfies $0.6 \leqq x \leqq 1.3$.

9. The nonaqueous electrolyte secondary battery according to claim 6, wherein the atomic ratio y satisfies $1.7 \leqq y \leqq 2.5$.

10. The nonaqueous electrolyte secondary battery according to claim 1, wherein the negative electrode satisfies formula (B) given below:

$$0.95 \geqq (w/d)/\rho \geqq 0.55 \qquad (B)$$

where ρ denotes a true density (g/cm^3) of the alloy, d denotes a thickness (μm) of the negative electrode, and w denotes a weight per unit area (g/m^2) of the negative electrode.

11. The nonaqueous electrolyte secondary battery according to claim 1, wherein the alloy is a single phase alloy or a polyphase alloy.

12. A nonaqueous electrolyte secondary battery comprising:

a positive electrode;

a negative electrode containing an alloy having a TiNiSi type crystal structure; and

a nonaqueous electrolyte.

13. The nonaqueous electrolyte secondary battery according to claim 12, wherein a lattice constant of crystal axis b of the TiNiSi type crystal structure falls within a range of 4Å to 5.5Å.

14. The nonaqueous electrolyte secondary battery according to claim 12, wherein the alloy contains Sn.

15. The nonaqueous electrolyte secondary battery according to claim 12, wherein the alloy has a composition represented by formula (C) given below:

$$(Ni_{1-(X+Z)}Ln_XM_Z)_ySn_{100-y} \qquad (C)$$

where Ln denotes at least one kind of element selected from the elements having an atomic radius falling within a range of 1.6×10^{-10} m to 2.2×10^{-10} m, M is at least one element selected from the group consisting of Ti, V, Co, Fe and Nb, and x, y and z satisfy the conditions of $0.4 \leqq x + z \leqq 0.7$, $40 \leqq y \leqq 80$ and $0 \leqq z \leqq 0.2$.

16. A nonaqueous electrolyte secondary battery

comprising:

a positive electrode;

a negative electrode containing an alloy having a ZrBeSi type crystal structure; and

a nonaqueous electrolyte.

17. The nonaqueous electrolyte secondary battery according to claim 16, wherein a lattice constant of crystal axis "a" of the ZrBeSi type crystal structure falls within a range of 4Å to 5.5Å.